

HANFORD ADVISORY BOARD

A Site Specific Advisory Board, Chartered under the Federal Advisory Committee Act

Advising:

US Dept of Energy
US Environmental
Protection Agency
Washington State
Dept of Ecology

November 6, 2009

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Re: Proposed Consent Decree and Tri-Party Agreement (TPA) Modifications

**Regional Environ-
ment/Citizen**

Todd Martin
Greg deBruler
Paige Knight
Gerald Pollet

Dear Ms. Olinger, Mr. Brockman, Ms. Zehm, Ms. Pirzadeh and Ms. Triay,

Background

On August 11, 2009, the State of Washington, the Environmental Protection Agency, and the Department of Energy (DOE) announced a proposed agreement to revise the TPA milestones, to be accompanied by a consent decree. Also on the same day, the Tri-Party Agencies signed a separate set of changes to the TPA regarding cleanup of soils and groundwater unrelated to the high-level waste tanks.

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The proposed consent decree and TPA modifications have many significant elements including:

- Extending the TPA milestone for emptying all Single Shell Tanks (SSTs) from 2018 to 2040 (M-45-70);
- Scheduling only 19 tanks to be emptied between now and the end of 2022 (Consent Decree);
- Setting a milestone for hot commissioning of the Waste Treatment Plant (WTP) in 2019 (changing from 2011) and fully operational in 2022 (Consent Decree);
- Placing key schedules for tank waste retrieval and vitrification plant operation in a judicially enforceable consent decree, as well as in the TPA;
- Agreeing that the consent decree will not be entered into until DOE includes extension of a moratorium on adding some offsite wastes to Hanford as part of the preferred alternative in the Draft Tank Closure and Waste Management Environmental Impact Statement (TC&WM EIS);
- Preparing a system plan by the DOE-Office of River Protection with updates every three years (M-62-40) while agreeing to negotiate potential accelerations of the TPA schedules every six years starting in 2015 (M-62-45); and
- Describing a Lifecycle Cost and Schedule Report for all cleanup projects to be prepared and updated (M-36-01A).

The Hanford Advisory Board (Board) has previously advised the Tri-Party Agencies on matters relevant to the proposals and negotiations. The Board encourages the State of Washington and DOE to consider our prior advice and this advice in amending the proposed consent decree and TPA modifications. A summary of prior Board advice and our rationale for changes to the TPA and consent decree follow the advice.

Advice

- The State of Washington and DOE should sign the consent decree, after incorporating comments. Use of a consent decree is a necessary tool to ensure adequate funding and progress towards WTP construction, tank retrieval, supplemental treatment and related milestones.
- The settlement package with the consent decree and TPA should clearly describe the Lifecycle Cost and Schedule Report, as described in Advice #223.
- The proposed pace of SST waste retrieval remains unacceptably slow with one or two tanks a year to be emptied by 2022 (for a total of 19 out of the remaining 140), and all tanks by 2040. The consent decree and TPA should include

milestones to accelerate retrieval of SSTs beyond one or two per year through 2022.

- The Tri-Party Agencies should incorporate milestones into the TPA and consent decree that drive DOE to incorporate capacity improvements for tank retrieval and waste vitrification when results of studies or tests are available, rather than waiting until 2015 or every six years thereafter to negotiate (proposed M-62-45).
- The Tri-Party Agencies should revise the proposed TPA changes to include a new milestone that would accelerate startup of the Low Activity Waste (LAW) portion of WTP and incorporation of capacity enhancements, as an element of accelerating SST retrieval.
- The TPA and consent decree should accelerate the decision on supplemental treatment for LAW from tanks rather than waiting until April 30, 2015 (draft milestone M-62-45(3)). LAW vitrification treatment is the available technology for treating 50% of tank wastes which the LAW portion of WTP is not currently planned to have capacity for. Language relating to bulk vitrification should be eliminated from draft milestone M-62-30.
- The Tri-Party Agencies should include enforceable commitments in the TPA and consent decree, as discussed in Advice #203, “to prevent disposal of additional off-site wastes before existing Hanford wastes are cleaned up and brought into compliance...”
- The Tri-Party Agencies should include enforceable commitments in the TPA to provide for removal to the extent practical, rather than capping, of wastes in soil (especially pre-1970 transuranic (TRU) and similar long-lived or highly radioactive and untreated chemical hazardous wastes). Inclusion, as we urged in Advice #203, is necessary to avoid repeated debates over whether baselines and regulatory decisions should include retrieval of these wastes.
- The TPA and consent decree should provide schedules requiring the Tri-Party Agencies to consider accelerating milestones every three years, beginning in 2012, based on the results of the system plan updates, new technology reviews and the Lifecycle Cost and Schedule report (rather than the current proposal of every six years starting after 2015).
- The Tri-Party Agencies should take public comment on all aspects of their proposed agreements, including the terms of accompanying settlement commitment letters (which has the only reference to the agreement on off-site wastes).
- The Tri-Party Agencies should commit to responding to public comments before taking formal action to adopt proposed changes or enter into the consent decree.

Discussion of Board Advice on the Proposed Consent Decree and TPA Modifications

The following discussion explains specific advice items with quotations from prior advice to the TPA Agencies on negotiations development leading to the proposed consent decree and TPA modifications.

The Lifecycle Cost and Schedule Report

The Lifecycle Cost and Schedule Report was proposed to provide a mechanism to allow the regulators, the tribes and the public to determine if DOE can complete cleanup projects faster than planned in DOE's baselines or proposed TPA milestones, and to allow evaluation of the assumptions on which DOE has based its planning. The Board urged DOE to develop and issue this report without delay, to allow all parties to understand how fast work could be accomplished if not constrained by DOE target budgets and fiscal plans; and, to whether the planned work would meet public values for cleanup. The Board continues to urge the Tri-Party Agencies to use the report to determine if work can be expedited.

Because of the importance of the Lifecycle Cost and Schedule Report, we are adopting separate advice on the report describing how the Tri-Party Agencies should revise the proposal to accomplish the report's purposes.

More Waste Needs to be Retrieved Sooner from SSTs than Proposed

DOE proposed to empty one to two tanks per year for a decade, and adopted baselines reflecting this slowdown. Evidence shows that contaminants from waste leaks are increasing in groundwater. Cleanup of contaminated soil (and groundwater) cannot occur until tanks are emptied in the relevant tank farms.

The Board has recommended action to remove wastes from SSTs faster than DOE's current budget pace of one to two tanks per year in the coming decade. The Board has, after deliberation and review of technical studies, offered advice on means by which more tanks could be emptied in the coming decade.

In February, the Board adopted advice stating that actions be funded to "remove waste as soon as possible from corroding and leaking SSTs... With 140 SSTs remaining to be emptied, DOE must accelerate retrieval beyond one or two tanks per year." (Advice #213) The Board remains concerned that the proposed agreement reflects the DOE baseline of one to two tanks emptied per year, with only 19 emptied by the end of 2022. Board Advice #213 and #210 stated the Board's overarching values and funding priorities, which includes

technical approaches for accelerating retrieval and treatment of tank wastes. We fail to see these approaches reflected in the proposed consent decree and TPA.

DOE should use American Reinvest and Recovery Act stimulus funds to examine technologies (e.g., wiped film evaporator) which might allow DOE to make more space available in Double Shell Tanks (DSTs). This would allow more waste retrieved from SSTs, since the major cause of slowing retrieval has been the lack of DST space.

The TPA modifications should commit to negotiate new milestones for the use of new technology and increased retrieval within a year of the review if proven viable, rather than waiting to negotiate such use until after April 2015.

The Board is pleased with the incorporation of a system plan for tank wastes in the consent decree, which the Board encouraged in Advice #209. However, DOE only agreed to consider milestone accelerations utilizing the results of the system plan after 2015, and once every six years thereafter. Yet, the system plan is proposed to be updated every three years. The TPA milestones and consent decree should be revised to include negotiations of potential accelerated work schedules every three years, beginning in 2012.

Before 2012, a decision is necessary on how supplemental treatment capacity for tank wastes will be provided (similar to M-62-30, which calls for completed negotiations on enhancing the initial LAW treatment plant within twelve months). The proposed agreement would delay any decision on supplemental treatment until April 30, 2015 (See draft M-62-45(3)). We believe this is too late to be effective in providing the capacity needed to reduce the overall timeline for treating LAW wastes. We are also disappointed that the proposed TPA modifications would permit DOE to review bulk vitrification technology, instead of moving ahead on proven means to increase capacity for LAW vitrification. There is little to show for the funds spent on bulk vitrification to meet standards for vitrified waste that will be buried at Hanford.

Early startup of the LAW portion of the WTP, and enhancements to the size and number of its melters, can accelerate waste retrieval, reduce the overall timeline for treating tank wastes and provide invaluable startup and commissioning experience for the High Activity and Pre-Treatment portions of WTP. We recommend that there be a set of milestones for early startup (prior to 2019) for LAW, and incorporation of capacity enhancements. We are aware that this would require re-engineering feed and moving up funding for startup. The benefits are worth that reallocation of costs.

Major Elements Missing from the Proposed TPA Changes and Consent Decree in regard to Waste Proposed to be Added to, or to Remain in, Hanford's Soil

The draft TPA changes and proposed consent decree do not include major provisions as the Board advised in Advice #203 (see quote at end).

The Board recommended that the TPA and/or consent decree include “provisions to prevent disposal of additional off-site wastes before existing Hanford wastes are cleaned up and brought into compliance or before the impacts from the wastes that will be left in the soil, or will go into landfills, are understood.”

In a letter from the State of Washington and DOE, DOE agrees to include as an element of the preferred alternative in the Draft TC&WM EIS, extending a moratorium on off-site waste until the WTP is operational. The moratorium is not an enforceable commitment, and the Board believes it should be.

The Board supports DOE broadening its proposed moratorium on shipping radioactive (and mixed) wastes to Hanford to include highly radioactive mixed wastes (Greater Than Class C and Greater Than Class C like wastes [GTCC]). Analyses in the draft TC&WM EIS show unacceptable impacts from offsite waste, yet the draft’s preferred alternative includes use of Hanford to bury such wastes after the vitrification plant is operational (2022).

There is not a rational relationship between operation of the vitrification plant to the principle that offsite waste should not be added to the site until existing wastes are brought into compliance and cleaned up.

The Board has repeatedly advised that the TPA should include enforceable requirements to remove large quantities of highly radioactive or long-lived radioactive wastes, such as Plutonium and other transuranic waste, from soil sites. Advice #203 advised that these negotiations include commitments to retrieve these wastes. We note that a legal settlement between DOE and Idaho included such provisions in the cleanup agreement for Idaho National Engineering and Environmental Laboratory. DOE’s baselines and contracts do not include characterization and retrieval. The Board recommends the Tri-Party Agencies address this issue in an enforceable manner to avoid future repeated disputes in individual cleanup decisions.

Public Review and Involvement in the Proposed Changes and Consent Decree

The Tri-Party Agencies should be willing to take public comment on all issues described in settlement documents between the State of Washington and DOE, and those urged to be included in these negotiations by the Board, during the comment period.

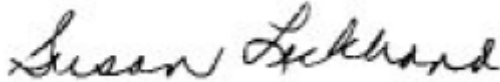
Because of the significance and long-life of these proposed TPA changes, the Board believes that the Tri-Party Agencies should issue their responses to comments and allow time (e.g.

two weeks) for a dialogue with the Board and the public, which is good public involvement practice. The Board recommends that the Tri-Party Agencies should take all public comments on the TPA changes into consideration and respond to comments before entering into the consent decree and signing the TPA modifications.

In Advice #203, the Board advised:

“The agencies need to include in the scope of their negotiations those issues raised by the public, Tribes and Board members for inclusion in the TPA, rather than limiting discussion. Those include provisions requiring removal, rather than capping, of wastes in soil (especially pre-1970 transuranic [TRU] and similar long-lived or highly radioactive and untreated chemical hazardous wastes); and, provisions to prevent disposal of additional off-site wastes before existing Hanford wastes are cleaned up and brought into compliance, or before the impacts from the wastes that will be left in the soil, or will go into landfills, are understood.” The scope of the draft agreements does not include these important elements.

Sincerely,



Susan Leckband, Chair
Hanford Advisory Board

This advice represents Board consensus for this specific topic. It should not be taken out of context to extrapolate Board agreement on other subject matters.

cc: Steven Chu, Secretary of Energy, U.S. Department of Energy Headquarters
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